



(12) **EUROPEAN PATENT APPLICATION**

(88) Date of publication A3:  
**23.04.1997 Bulletin 1997/17**

(51) Int Cl.<sup>6</sup>: **G01R 31/36, H02J 7/00**

(43) Date of publication A2:  
**20.11.1996 Bulletin 1996/47**

(21) Application number: **96303268.5**

(22) Date of filing: **10.05.1996**

(84) Designated Contracting States:  
**CH DE FR GB IT LI**

(30) Priority: **16.05.1995 US 442550**

(71) Applicant: **Hewlett-Packard Company**  
**Palo Alto, California 94304 (US)**

(72) Inventors:  
 • **Brink, Gregory D.**  
**McMinnville OR 97128 (US)**

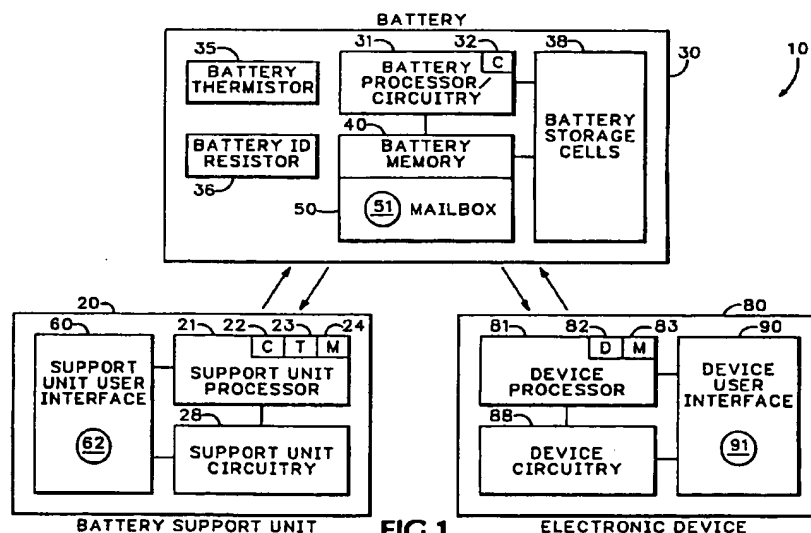
• **Benvegar, Carl E.**  
**McMinnville OR 97128 (US)**  
 • **Ochs, Dennis E.**  
**Seattle WA 98121-1045 (US)**  
 • **Andrews, Jonathan N.**  
**Monmouth, OR 97361 (US)**

(74) Representative: **Colgan, Stephen James et al**  
**CARPMAELS & RANSFORD**  
**43 Bloomsbury Square**  
**London WC1A 2RA (GB)**

(54) **Battery support unit for exchanging information with a battery mailbox**

(57) A battery support unit (20), such as a defibrillator battery charger, tests a battery (30) having a memory (40) for an error condition. If the battery support unit finds an error condition with the battery, it transmits error data (51) to a mailbox (50) located in the battery's memory. Other battery support units or electronic devices (80), or even this battery support unit at a later date, can read the error data in the mailbox and take an appropriate action. For example, the battery support unit can

read the mailbox and, if it finds error data placed there by itself, another battery support unit, or an electronic device, enable an indicator (62), such as an indicator that informs a user that maintenance needs to be performed on the battery. When battery maintenance has been selected, the battery support unit reconditions the battery by charging and discharging the battery a predetermined number of times, and also performs additional testing on the battery.



**FIG. 1**



European Patent  
Office

# PARTIAL EUROPEAN SEARCH REPORT

Application Number

which under Rule 45 of the European Patent Convention EP 96 30 3268  
shall be considered, for the purposes of subsequent  
proceedings, as the European search report

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP-A-0 623 828 (ALSTHOM CGE ALCATEL) 9 November 1994 * abstract; claims 6-9; figures 2,3 * * page 2, line 49 - line 51 * * page 3, line 15 - line 18 * * page 3, line 26 * * page 3, line 43 - line 46 * ---	1-10	G01R31/36 H02J7/00
X	EP-A-0 523 526 (SIEMENS AG) 20 January 1993 * abstract; claim 8; figures * * column 1, line 14 - line 15 * * column 1, line 34 - line 35 * * column 3, line 10 - line 25 * ---	1-10	
X	WO-A-92 22099 (MOTOROLA INC) 10 December 1992 * page 3, line 16 - line 18 * * page 7, line 8 - line 13; figure 4 * * page 8, line 34 * * page 9, line 1 - line 20 * ---	1-10	
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			G01R
<p><b>INCOMPLETE SEARCH</b></p> <p>The Search Division considers that the present European patent application does not comply with the provisions of the European Patent Convention to such an extent that it is not possible to carry out a meaningful search into the state of the art on the basis of some of the claims.</p> <p>Claims searched completely : 1-5,7,8</p> <p>Claims searched incompletely : 6,9,10</p> <p>Claims not searched :</p> <p>Reason for the limitation of the search:</p> <p>Claims refer to themselves or to non-existing claims.</p>			
Place of search		Date of completion of the search	Examiner
BERLIN		10 February 1997	FRITZ, S
<p><b>CATEGORY OF CITED DOCUMENTS</b></p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons</p> <p>&amp; : member of the same patent family, corresponding document</p>			

EPO FORM 1501 (01.97) (P0407)



European Patent  
Office

## PARTIAL EUROPEAN SEARCH REPORT

Application Number

EP 96 30 3268

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
X	US-A-4 885 523 (KOENCK STEVEN E) 5 December 1989 * abstract; claims 1,2,10,11; figures 12,23-27 * * column 2, line 34 - column 3, line 7 * * column 3, line 53 - line 57 * * column 13, line 64 - column 14, line 12 * ---	1,8	
A	US-A-4 302 714 (YEFSKY SHELDON A) 24 November 1981 * abstract; figures *	1,8	
X	EP-A-0 622 863 (SONY CORP) 2 November 1994 * page 3, line 28 - line 40; figures 2,8 * * page 4, line 26 - line 29 * * page 8, line 2 - line 14 * * page 18, line 1 - page 19, line 35; table 7 * ---	1,8	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
A	DE-A-42 21 513 (SANYO ELECTRIC CO) 11 February 1993 * abstract; figures 2,3 * -----	1,8	

04/96 FORM 150 01/92 (P04C10)